Securing the gateway to paradise.
IP-Surveillance integrated with buildings management covers all angles at Mauritius airport.

Organization:
Airports of
Mauritius Co. Ltd (AML)

Location:
Mauritius

Market segment:
Transportation

Application:
Migration to
IP-Surveillance and
integration with
building management

Axis partner:
Grintek

Mission
Airports of Mauritius Co. Ltd (AML) needed a surveillance system to support the ever-demanding roles of security agencies working at Sir Seewoosagur Ramgoolam (SSR) airport in Mauritius. The system also needed to easily integrate into the airport's building management system, and be scalable enough to cope with aggressive expansion plans.

Solution
AML worked with South African-based Grintek, a leading Axis partner, who delivered a system utilizing 105 Axis blade video encoders mounted within nine racks around the airport. The servers converted feeds from around 200 cameras to deliver digital images onto a dedicated network. This surveillance system was integrated into the airport's Honeywell Electronic Buildings Integrator (EBI), triggering cameras to cover incidents such as access control or fire alarms. Effective video management was achieved through using Honeywell Digital Video Manager (DVM), allowing quick, targeted retrieval of incidents for use by the various law enforcement agencies that operate within SSR airport.

Result
The solution pushes the boundaries of IP-Surveillance through its integration with building management systems, such as the ability to instantly link to incidents across the airport, flagging up issues and automatically record video footage. The solution is easily scalable and is designed to cope with the airport's expansion plans.

Aiming for the sky
AML is responsible for developing and managing airport infrastructure and behalf of the Mauritius government – including the island's main international airport, Sir Seewoosagur Ramgoolam (SSR). The airport is preparing for ever-increasing passenger numbers as the island's popularity as a tourist and financial centre continues to grow.

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"The system achieves our objectives of providing an invaluable tool for our security teams, but goes much further. Through integration with building management systems, surveillance is helping manage airport operations through flagging up situations across our site. We are now confident our solution is easily scalable to keep up with the pace of our expansion."

A spokesperson for Information Communication Technologies and Services Department, Airports of Mauritius Co. Ltd.

After successive extensions to the main passenger terminals at SSR airport, the previous ageing CCTV system was considered inadequate for the demands of this growing, modern airport. The task of commissioning a new surveillance system was given to the Information Communication Technologies and Services Department (ICTS). The team at this department had not tackled a security or surveillance project before but the consensus was that a sensible way forward was to ensure the new surveillance system used an IP network.

Demands were placed on the ICT department from across the airport management, especially from the heads of security who were battling with the old CCTV system, which was so inadequate that extra security staff had been deployed to cover its shortcomings. It was imperative that the new system could be easily expanded and built upon; they needed a system that they would "not have to scrap after five years". The system would also have to be highly scalable to cope with an estimated 100% expansion to 350 cameras within five years as part of the airport master plan until 2020.

The department understood the logic of integrating surveillance into other building systems as a way of using the cameras across the airport to help with general airport management, such as providing alerts for low level incidents. For example, if an alarm sends warning of a blocked luggage conveyor belt, the incident would typically go unnoticed unless a member of staff was in the immediate vicinity.

Network video safeguards the future
Adopting network video has paid dividends in itself, apart from the benefits of wider integration with other building systems. Images fed by Axis blade video encoders across the network are managed by Honeywell's Digital Video Manager (DVM). The system is designed to record incidents and abnormal events. The recordings stored only show the events, which saves scanning through hours of videotape. Security staff can use image search facilities and instant retrieval functionality to pinpoint relevant footage, with high quality video files quickly sent via DVD or any required media to the appropriate authorities. The DVM system is also available for use by the police, other law enforcement agencies and some authorized third parties, either on-site or at their own off-site offices via the airports WAN.

Every exported recording is digitally signed to authenticate of the origin of the recording and prove that the recording has not been tampered with. The system provides a complete audit trail of all operator actions and events as well as recording all changes to the configuration of the system. Digital signatures combined with the audit trail enhance the evidential weight given to video files when they are used in legal proceedings. DVM has also helped SSR airport security staff to locate any camera within the airport and use traditional live pan-tilt-zoom functionality for instant monitoring of specific areas of the building.

As the DVM integrates with the wider Honeywell Electronic Buildings Integrator (EBI), controlling fire, access control and heating/ventilation, it will automatically display visuals of individuals who are denied access to a restricted zone or, when a fire alarm is activated, relay an instant picture to help to manage these sorts of events at the airport. The system allows users to view and record on-demand the output of any camera or schedule timed recordings. It also allows for automatic video display and recording if motion is recorded within a defined area.

Now, when the luggage conveyor belt becomes blocked, because the alarm is integrated into the EBI system, cameras show footage pinpointing the exact location of the problem. A spokesperson for the ICTS department concluded, "All of these benefits were possible through use of an IP-based system. We are pleased that we were ambitious with our objectives, as we now have a system that delivers benefits for our security and operational teams, is reliable and secure and can be built on for the future."

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